

Microstreamer[®] Family F880 Series Tape Drive

Cipher Innovation

Cipher's Microstreamer tape drive is the ideal data storage device for a wide variety of applications, including: backup and file organization for Winchester disks, input/output, archival storage, and real-time data generation for COM and graphics.

Ease of Operation

Automatic loading of the tape reel ensures smooth, easy operation and contributes to Microstreamer's design simplicity. With this special autoloader feature that threads the tape automatically once the reel has been inserted, Microstreamer delivers a powerful product advantage that minimizes operator training and expands reliability. And Microstreamer's autoloader operates on any size reel of tape, from 7 inches to 10.5 inches.

Versatile Performance

Microstreamer's two speeds of operation (25 and 100 inches per second) provide users with maximum flexibility. The lower 25 ips speed operates on software for traditional start/stop applications, and speeds can be switched easily without having to be at load point when requiring 100 ips for high-speed applications.

A large storage capacity of up to 46 megabytes of unformatted data on a standard, readily available 10.5-inch, 2400-foot reel of 1.5-mil. tape makes Microstreamer the perfect backup device. And on 1-mil. tape—which Microstreamer also readily accepts—the drive can store up to 61 megabytes of unformatted data.

Reduced Rack Space

Microstreamer's simplified mechanical design eliminates the need for large, complex rack spaces, and its unique, compact horizontal construction—only 8.75 inches high—allows the tape drive to fit easily and unobtrusively into even the smallest of spaces.

A key component in Microstreamer performance is its microprocessor intelligence. The tape drive's Z-80 microprocessor increases data reliability by implementing diagnostics efficiently and by handling all other data storage and drive functions with ease and precision.

Microstreamer dumps 46 megabytes in 4.8 minutes and rewinds the tape at an average speed of 175 inches per second, which makes a perfect partner for today's Winchester disks.

High Capacity 3200 bpi— IBM Compatible

Cipher's Microstreamer II provides up to 92 megabytes of storage at the higher density of 3200 bpi at 50 inches per second, while still providing the ANSI/IBM standard 1600 bpi at 25 and 100 ips speeds. This model provides users with a higher storage capacity for backup applications and with a basic 1600 bpi ANSI/IBM interchange device—all in one unit.

Both models of Cipher's Microstreamer are available in either a rack-mounted or a free-standing, desk-top cabinet design. This optional cabinet feature offers an attractive alternative where rack space is not available.

- ☐ fully ANSI and IBM compatible at 1600 bpi
- ☐ 3200 bpi option for file save/restore applications
- ☐ fully automatic loading/threading
- ☐ 25 ips for transactional applications and slow-speed streaming
- ☐ 100 ips for high-speed streaming disk dumps
- ☐ large storage capacity (92mb)
- ☐ built-in diagnostics
- ☐ compact size of 8.75 inches in height
- ☐ simple mechanics
- ☐ microprocessor electronics
- ☐ high speed data transfer
- ☐ high data reliability
- ☐ low cost
- ☐ serviceability and reliability



Cipher Model F880 Tape Drive Specifications

Reel Size

10.5" (26.67cm) dia
8.5" (21.59cm) dia
7" (17.78cm) dia

Recording Mode

Phase encoded (PE)
ANSI and IBM compatible
9 Track—1600 bpi (63 CPmm)

Tape Velocity

Streaming Applications
100 ips
Traditional Applications
25 ips
Rewind Speed
175 ips
Instantaneous Speed Variation
±4% max of long term
Long Term Variation
±1% of nominal

Nominal Data Access Time

25 ips
Read 40 milliseconds
Write 40 milliseconds
100 ips
Read 260 milliseconds
Write 260 milliseconds

Tape Media/ Handling

Width
0.5 inch (1.27cm)
Thickness
1.5 mil (0.038mm) or
1.0 mil (0.025mm)
Tension
7 oz. nominal (198.5 grams)
Type
Computer grade
ANSI x 3.40-1976
Head
Hard Surfaced
Tape Cleaner
Sapphire or precision ceramic

Environment

Operating Temperature
+10°C to +40°C
Relative Humidity
20—85% non-condensing
Altitude
0—10,000 ft (3048m)

Mechanical Description

Mounting
Standard EIA Rack
Height
8.75" (22.2cm)
Width
17.0" (43.2cm)
Depth, from mounting surface
22.0" (55.9cm)

Depth, overall
24.5" (62.2cm)
Weight
80 lbs (36.4kg)

Electrical Requirements

Electronics
Silicon solid state low
power Schottky, TTL &
NMOS Microprocessor
Interface
Formatter compatible
interface (TTL low true)
Power
100, 120, 220, 240 VAC
+10, -15%, 49-61HZ
270 watts max
Regulatory Safety
UL approved
CSA approved as a
recognized component
Meets FCC requirements

Capacity

46 megabytes of unformatted data

MTBF

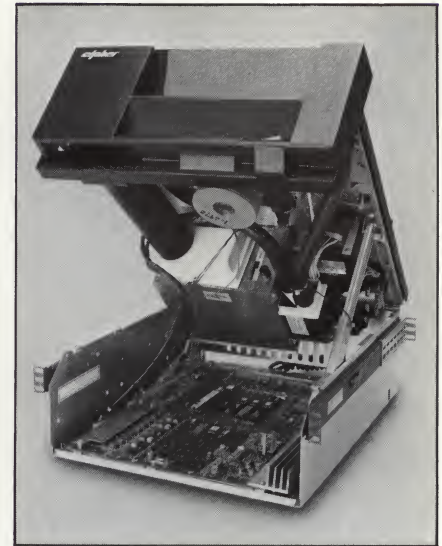
5,500 hours of use

Additional Specifications for Model F880-II

Recording Mode
9 Track—3200 bpi (126 CPmm)
Tape Velocity
50 ips
Nominal Data Access Time
50 ips
Read 120 milliseconds
Write 120 milliseconds
Transfer Rate
160 kilobytes/sec
Capacity
92 megabytes of unformatted data

Additional Specifications for Optional Cabinet Unit

Physical Size
Height
10.59" (26.90cm)
Width
19.88" (50.49cm)
Depth
26.94" (68.43cm)
Weight
15 lbs (6.825kg)
without streamer
95 lbs (43.225kg)
with streamer (total weight)
Regulatory Safety
UL listed
CSA certified
Meets FCC requirements



Cipher's Microstreamer tape drive features built-in diagnostics, which automatically self-tests its circuits every time you turn on the power. Also, a powerful set of selectable diagnostics—with a comprehensive fault isolation guide—greatly assists the service engineer in fault isolation. The fault isolation guide can be used to isolate board failures to the IC level.

Easy access is provided to any part of the drive without having to remove the Microstreamer from the rack, thus simplifying serviceability. Microstreamer's single-board circuitry reduces the parts count and eases assembly and maintenance. The drive's simple design and construction gives Microstreamer an MTTR (mean time to repair) of under 30 minutes, thereby enhancing reliability.

Built-in diagnostics, serviceability, and reliability are features that make Microstreamer the most cost-effective storage medium on the market today.



huis ter heideweg 28, postbus 2
3700 AA zeist, tel 03404-21344

CIPHER DATA PRODUCTS, INC.
10225 Willow Creek Road
P.O. Box 85170
San Diego, California 92138
Telephone: (619) 578-9100
TWX: 910-335-1251

CIPHER DATA PRODUCTS (UK) LTD.
Camberley, Surrey, England
Telephone: 0276-682912
Telex: 858329

CIPHER DATA PRODUCTS S.A.R.L.
Paris, France
Telephone: (1) 668 87 87
Telex: 203935

CIPHER DATA PRODUCTS GmbH
Munich, West Germany
Telephone: (089) 807001/02
Telex: 521-4094